

Perez 1

Inventor: Miguel-Angel Perez

Title: Mr. Plumber's Holder by Clasp

This application claims the priority date of the provisional patent application No.

5 60/424,610 Filed on November 7<sup>th</sup>, 2002.

## BACKGROUND OF THE INVENTION

The present invention is related to the field of plumbing. More specifically the invention

10 is related to a holder device allowing plumbers to clasp together the primer and the glue containers.

Plumbers currently use two basic products, primer and glue, to install and repair water and waste pipes. These products are always applied one after the other and the plumbers

15 have to keep them both close at hand.

Fitting pipe unions may be complicated because there are many points to fit and some of them are located far away from each other. Furthermore, the pipes are often located in inaccessible places or in places with a very limited space. A normal practice is to

20 assemble the cans of primer and glue by means of adhesive tape in order to carry them together. This practice however, has the disadvantage of drops and spills especially in locations with limited space.

Therefore there is a long-felt need of a light and simple design allowing clasping the primer and glue together without adding the problem of spilling and dropping and simultaneously allowing the plumber a freedom to move.

- 5 US patent number 5,992,624 discloses a plumber's caddy with a holder for plumbing tools, fittings and supplies. The caddy comprises a shallow base tray fixed with two cylindrical holders and one arm. The arm is a unitary member, but comprising three different parts, providing rotation and tilting of the holder. According to an alternative embodiment the glue and primer cans are attached to the rotating and tilting arm with two  
10 clips. A third alternative embodiment comprises a shallow base tray for both the cans and one clip.

Even if this invention is an improvement to the prior art, the disadvantage of all three embodiments is that they are difficult to carry or manage. The caddy and the arm are  
15 relatively large and heavy. The caddy is designed for multifunctional purposes. The rotating and tilting arm makes the apparatus unstable due to the variety of positions that the plumber assumes while working and thereby increasing the risk of drops and spills.

Further more as being composed from several parts makes the manufacture and operation  
20 more complicated.

The present invention solves these problems by providing a simple holder, preferably made of one unit and out of flexible material.

The holder according to the present disclosure provides easy access to containers, freedom of movement, lesser oscillations, neither spills and drops during the user of primer and glue canes, nor involves in expensive manufacturing.

## 5 SUMMARY OF THE INVENTION

The device is a simple holder, preferably only one unit, made of flexible material. The main aspect to the present invention comprises a unitary vertical arm made of one piece, integrally formed with two perpendicular clasps, adjacent to each other and an

10 approximately 180-degree angle. The two clasps are for holding and carrying the containers for primer and glue, used by the plumbers. In addition, the device includes an opening in the vertical arm in order to hang the device from a ladder or other supporting structures. The invention also has a shaped tongue at the upper end of the arm to attach the device on a belt while working.

15

Consequently, one object of the present invention is to provide a simple and light holder for a plumber to hold glue and primer cans.

Another object is to provide a small and simple holder with a minimum number of  
20 members whereby manufacturing the device will not be expensive.

A still another object is to provide a small holder with reduced oscillation and thereby with reduced risk of the glue and primer to spill or drop.

A further object is to provide a holder that gives the maximal freedom of movements for the plumber while working.

- 5 Another object is to provide a holder, which the plumber can hang either on ladder or other supporting structure or alternatively hang it on his belt while carrying with him.

Additional advantages will become apparent from a following description and the accompanying drawings.

10

#### BRIEF DESCRIPTION OF THE DRAWINGS

Fig. 1 is a perspective view of a preferred embodiment

Fig. 2. Is a perspective view of a vertical arm with an upper end tongue ending in a little  
15 hook, and the elongated lower portion.

Fig. 3 is a top view of two clasps connected to the arm.

Fig 4 is a rear view of the holder device.

Fig 5 is a front view showing another embodiment.

Fig 6 is a top view of to clasps connected to the arm in one embodiment.

20

## DETAILED DESCRIPTION OF THE INVENTION

The holder device described in Figs. 1 to 6 is designed for carrying or hanging together the primer and glue containers used by plumbers for installing and repairing pipes.

5

Fig. 1 is a perspective view of preferred holder device. The frame is a unit member, The thickness of which is approximately  $\frac{1}{4}$  inches. The frame includes a vertical arm and two clasps. The unit structure is clasping at least tow cans by pressure, applying enough force over the containers in order to hold them properly. The cans are primer and glue

10      containers commercially available in standard dimensions.

Figure 2. Shows a vertical arm **8**, which is a central support of approximately 8 $\frac{1}{2}$  inches in length and 1  $\frac{1}{2}$  inches wide.

15      Fig 1 and Fig 2 show the vertical arm **8** having a down folded tongue **10**. The distance between the downward folded tongue **10** and the arm **8** is predetermined and it is meant for attaching the device on a belt by sliding the belt through the opening between the arm **8** and the tongue **10**. The tongue **10** has a hook **12** for adjusting the device to the plumber's belt with predetermined dimensions. The commercial belt has standard  
20      dimensions.

Fig 1 and Fig 2 shows a free elongated portion **28** at the lower end of the vertical arm **8**. During bending or other movements, the elongated portion **28** will maintain a vertical

position of the containers, bringing support and balance for the entire frame and avoiding oscillations and spills from the cans.

The vertical arm **8** has a through hole **14**, preferably of rectangular shape of  
5 approximately 3/8 x 5/8 inches. This through hole **14** acts as a hook, allowing the  
plumber to hang the device on a ladder or other supporting surface.

Fig 1 shows an integrally molded unit with a horizontal member **16**. In this embodiment  
the member **16** is projected perpendicularly forward from the vertical arm **8**.

10

Fig 3 shows the horizontal member **16** with two clasps **18** and **20**, which are joined  
together by a shaped surface portion **22**, so as to form a whole unit with the vertical arm  
**8**. Each of the clasps **18** and **20** are being adjacent to each other and approximately 1980  
degree apart.

15

Clasps **18** and **20** have a diameter approximately of 23 inches. The width of the clasps **18**  
and **20** is about 1 inch.

Fig 3 shows the clasp **18** having a lateral aperture **24** and the clasp **20** having a lateral  
20 aperture **26**. The width of each aperture **24** and **26** are approximately 2 1/2 inches. Clasps  
**18** and **20** are designed for gripping and clasping the primer and glue containers.  
Apertures **24** and **26** are shaped so that it is easy to insert the primer and glue containers.

These containers are commercially available in standard dimensions an well known by the plumbers.

Fig 4 shows a rear perspective where the horizontal member **16** is displayed back to the tongue **10**.

Although, the preferred embodiment is an integral entity, it can be made from two separate pieces. Furthermore, other predetermined shapes can join the vertical arm **8** and horizontal member **16**.

10

In an other embodiment the clasps **18** and **20** are similarly connected by the shaped surface **22** to the vertical arm **8**, but having a diameter of approximately 2 1/2 inches and width of 1/8 inches and apertures **24** and **26** of approximately 2 to 4 inches. The vertical arm **8** is the similar to that described in the preferred embodiment.

15

Fig 1 and Fig 5 show two different embodiments off the clasps.

Fig 5 shows an alternative embodiment with frontal apertures **24** and **26**. The dimensions are the same described above in the two alternative embodiments.

20

Fig 6 shows a top view of the alternative embodiment shown in Fig 5.

The holder device may be made from plastic or steel but it needs to be flexible, light and durable. Various colors can be used in commercial presentations, at least yellow caterpillar, green, orange, black and camouflage.

- 5 During the process of installing and repairing pipes the plumber can carry the holder device according to this disclosure on the belt along with other tools. The two clasps **18** and **20** embrace the containers of primer and glue by pressure and hold them together. The apertures **24** and **26** have the necessary width for introducing both the containers and consequently to clasp them. The vertical arm **8** supports the entire frame, providing
- 10 stability by having the elongated portion **28**. On the other hand the lengthening of the vertical arm below the clasp is important in order to degree the torque acting on the most external parts of the clasps. Such a torque would produce fatigue in the material after extensive use. The upper end tongue **10** allows hanging of the device on a belt and the through hole **14** allows hanging of the devise from a ladder or other supporting structure.
- 15 The integral frame, made of flexible material is easy to carry and less expensive to manufacture.